

REMARKS

This is a full and timely response to the non-final Official Action mailed **May 23, 2008** (the “Office Action” or “Action”). Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested.

Claim Status:

Under the imposition of a previous Restriction Requirement, claims 1-31 and 40-59 were withdrawn from consideration. The recent Office Action alleges that claims 37-39 and 60-64 are also drawn to nonelected species according to the previous Restriction Requirement and should be withdrawn. Applicant will be entitled to rejoinder of any withdrawn dependent claims upon the allowance of any corresponding independent claims. MPEP § 821.04.

By the foregoing amendment, claim 32 has been amended. No new claims or claim cancellations are proposed by the present paper. Thus, claims 32-36 are currently pending for further action.

Prior Art:

In the recent Office Action, claims 32-36 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,014,121 to Hasegawa et al. (“Hasegawa”). For at least the following reasons, this rejection is respectfully traversed.

Claim 32 now recites:

A high speed 3D surface imaging camera comprising:
a light projector for selectively illuminating an object to generate 3D image data;

an image sensor configured to receive reflected light from said object and to generate three separate color image data sets based on said reflected light, *said three separate color image data sets providing said 3D image data of said object*; and

means for generating sequential color projections from said projector onto said object to be photographed;

wherein said image sensor is configured to eliminate cross talk between said sequential color projections by allowing for a sequential exposure of said image sensor within a single frame cycle, said sequential exposure corresponding with said sequential color projections.

(Emphasis added).

Support for the amendment to claim 32 can be found in Applicant's original Specification at, for example, paragraphs 0036 and 0041-42.

In contrast, Hasegawa teaches "an image pickup system with an illuminating device capable of sequentially irradiating three kinds of color lights different from each other onto an object, an objective lens system forming images of the object with the color lights, a solid-state image sensor receiving the images of the object, a signal processing device producing individual color images of the object based on the solid-state image sensor, and a color dispersion device or a color separation device disposed in an optical path of light incident on the solid-state image sensor from the object." (Hasegawa, Abstract). Hasegawa further teaches that "image signals corresponding to the respective colors... are integrated together...to thereby be displayed in color on a screen of a color TV monitor 23." (Id, col. 4, line 67 to col. 5, line 9).

Hasegawa does not, however teach or suggest the subject matter of claim 32. Specifically, Hasegawa does not teach or suggest that "three separate color image sets" obtained from "reflected light from said object" "[provide] said 3D image data of said object." (claim 32). Rather, the individual "image signals corresponding to the respective colors" obtained by Hasegawa's system represent the exact same reference view and vary only by the wavelength of

light used in illumination and detection, as evidenced by the fact that the signals are “integrated together...to thereby be displayed in color on a screen of a color TV monitor 23.” (Hasegawa, col. 5, lines 2-9).

It is commonly understood by those having ordinary skill in the art that to obtain a three-dimensional image of an object, separate images of the object must be obtained from multiple perspectives. Applicant’s original Specification corroborates this principle. (*See e.g.* Applicant’s Specification, paragraphs 0002-0004). Nowhere does Hasegawa teach or suggest the concept of obtaining separate images of the object being imaged from multiple perspectives. Moreover, Hasegawa does not teach, suggest or even allude to the idea of three-dimensional imaging anywhere. Consequently, Hasegawa *cannot* teach or suggest “three separate color image data sets providing said 3D image data of said object” as recited by claim 32.

“A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least these reasons, the rejection based on Hasegawa of claim 32 and its dependent claims should be reconsidered and withdrawn.

Additionally, various dependent claims of the application recite subject matter that is further patentable over the cited prior art. Specific, non-exclusive examples follow.

Claim 35 recites “a computing device communicatively coupled to said image sensor wherein said computing device is configured to combine said separate color image data sets into a composite Rainbow-type image of said object.” Applicant’s original Specification defines the

term “Rainbow-type image” as “an image or a camera configured to collect an image that may be used to form a three-dimensional image according to the triangulation principles illustrated above with respect to Figures 1 and 2.” (Applicant’s Specification, paragraph 0026). This definition must be respected in the examination of claim 36. The meaning of words used in the claims is determined by the meaning given to those words in the specification. *Markman v. Westview Instruments*, 116 S. Ct. 1384 (1996); *McGill, Inc. v. John Zink Co.*, 736 F.2d 666, 674 (Fed. Cir. 1984); *ZMI Corp. v. Cardiac Resuscitator Corp.* 884 F.2d 1576, 1580, 6 U.S.P.Q.2d 1557, 1560-61 (Fed. Cir. 1988). As has been amply demonstrated above, Hasegawa utterly fails to teach or suggest any type of three-dimensional image. For at least this additional reason, the rejection of claim 32 should be reconsidered and withdrawn.

Conclusion:

In view of the foregoing arguments, all claims are believed to be in condition for allowance over the prior art of record. Therefore, this response is believed to be a complete response to the Office Action. However, Applicant reserves the right to set forth further arguments in future papers supporting the patentability of any of the claims, including the separate patentability of the dependent claims not explicitly addressed herein. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed.

The absence of a reply to a specific rejection, issue or comment in the Office Action does not signify agreement with or concession of that rejection, issue or comment. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim,

except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment. Further, for any instances in which the Examiner took Official Notice in the Office Action, Applicants expressly do not acquiesce to the taking of Official Notice, and respectfully request that the Examiner provide an affidavit to support the Official Notice taken in the next Office Action, as required by 37 CFR 1.104(d)(2) and MPEP § 2144.03.

If the Examiner has any comments or suggestions which could place this application in better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

If any fees are owed in connection with this paper that have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC.

Respectfully submitted,



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